



## U.S. EPA Evaluates On-Site Treatment Proposal for Additional Contamination Found Last Fall Fields Brook Superfund Site

Ashtabula, Ohio

May 2001

### This fact sheet will tell you about:

- Possible on-site treatment of highly contaminated soil and sediment found in October 2000
- Opportunities for public input into U.S. EPA's evaluation of on-site treatment
- Upcoming cleanup activities
- Where you can get more information

### Public Meeting

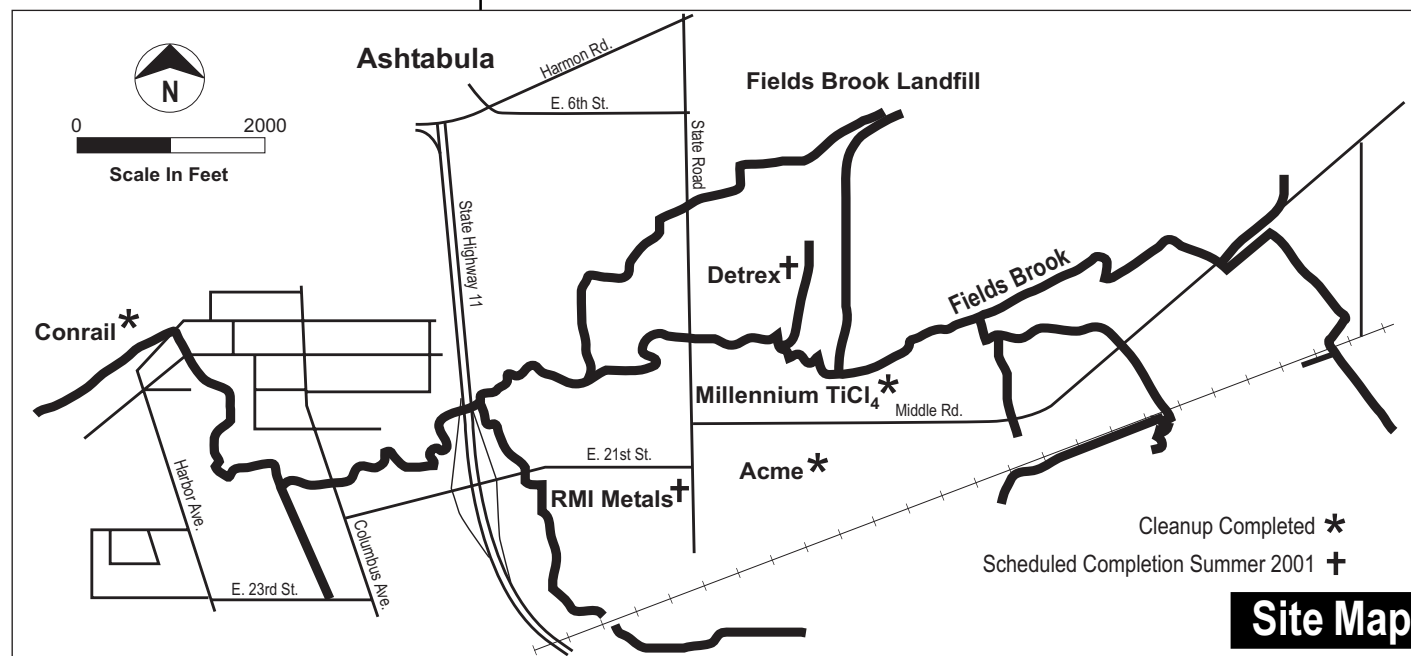
The U.S. EPA will hold a public meeting to discuss and get feedback on the issues listed above on Thursday, May 10, 2001, at 7 p.m. at the Ashtabula Area Chamber of Commerce, Culver Conference Center, 4536 Main Ave., Ashtabula, Ohio.

### Introduction

This fact sheet provides information about the Fields Brook Superfund site in Ashtabula, Ohio. The U.S. Environmental Protection Agency (U.S. EPA) and the U.S. Army Corps of Engineers are overseeing the cleanup, which has resumed this spring and is scheduled to be completed in 2002. The U.S. EPA has scheduled a public meeting on May 10, 2001, to inform you of the cleanup progress and the latest developments at the site (see details at left). If you have any questions about this update or the site in general, please contact the U.S. EPA staff listed on the back page.

### Site History

The U.S. EPA placed the Fields Brook site on the National Priorities List in 1983. Due to the size of the site, the U.S. EPA divided it into separate work areas called Operable Units. These work areas include the cleanup of contaminated sediment in Fields Brook and its tributaries, the cleanup of contaminated soil in floodplain and wetland areas adjacent to Fields Brook, and the cleanup of the industrial "Source Control" areas that could recontaminate Fields Brook. (See site map below for names and locations of these areas.) A Record of Decision



(ROD), the document outlining the U.S. EPA's cleanup plan, was signed for the Sediment Operable Unit in 1986 and for the Floodplain/Wetland Area and the Source Control Operable Units in 1997. In 1997 and 1999, additional documents that describe changes to the RODs were approved.

## Possible On-Site Treatment of Additional Contamination Found in Brook and Floodplain

Last year, a landfill was constructed on what was the RMI Sodium Property on State Road. Approximately 20,000 cubic yards of contaminated soil and sediment from the Floodplain and Sediment Operable Units have already been excavated and placed in the landfill.

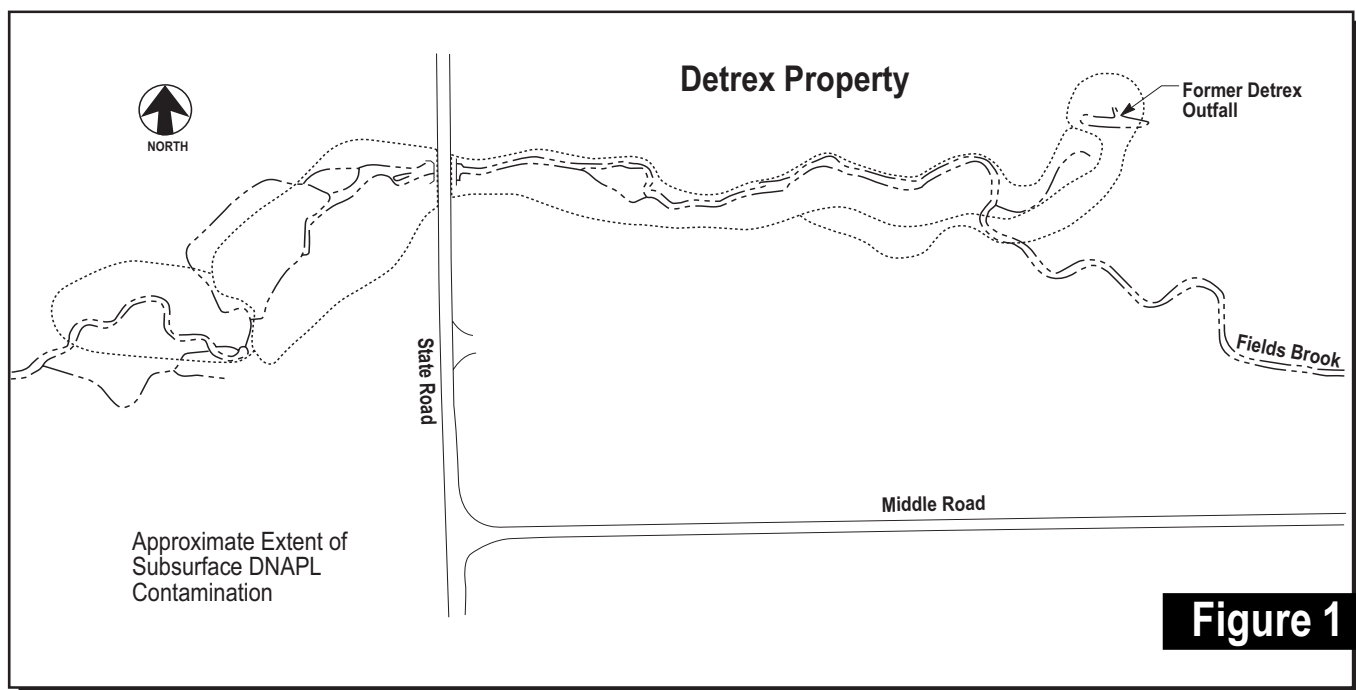
In October 2000, during excavation of deep sediment in the industrial area near State Road, a previously unidentified layer of contamination was found (see map below). (This layer of contamination is referred to as Dense Non-Aqueous Phase Liquid or DNAPL.) This layer contains high levels of chlorinated solvents, such as trichlorethylene, hexachlorobenzene, hexachlorobutadiene, and tetrachloroethylene. These contaminants are heavier than water and apparently sank down to the bottom of the brook sediment, hit the clay bottom, and moved laterally out under floodplain soils.

This layer of DNAPL-contaminated soil and sediment, which sits between 4 and 6 feet below the

ground, must be removed from Fields Brook and treated. The U.S. EPA estimates that approximately 15,000 cubic yards of this heavily contaminated soil and sediment is present.

The companies performing the cleanup (responsible companies) have proposed a method of treatment for this layer of contamination known as Low Temperature Thermal Desorption (LTTD). The LTTD system would heat the soil and sediment and drive the organic contaminants into the air within the treatment unit. The volatilized contaminants in the air would then be thermally destroyed in the air pollution control system. Although this system does not burn the soil and sediment, the contaminants in the air would be destroyed in a thermal oxidizer, which is also known as an afterburner. Therefore, the U.S. EPA has determined that such a system is sufficiently similar to incineration to require compliance with federal incineration regulations. The responsible companies have submitted planning documents that comply with these requirements.

In addition to chlorinated solvents, Fields Brook contains other contaminants, including metals, radionuclides, and polychlorinated biphenyls (PCBs). Although PCBs do not appear to be contaminants of concern in this layer of contamination, the thermal treatment unit would volatilize and destroy any PCBs present. Metals and radionuclides also do not appear to be a concern in the soil and



**Figure 1**

sediment. However, as a precaution, the air being emitted from the stack would be sampled and analyzed for volatile and semi-volatile organic compounds, PCBs, metals, dioxins and furans before a final approval of the system would be given. In addition, all soil entering the treatment unit would be scanned to make sure that radionuclide levels are not elevated above naturally occurring background levels.

If the U.S. EPA allows the implementation of on-site treatment, the system would not be fully operational immediately. The system would be tested on some of the most highly contaminated material so that the U.S. EPA could evaluate its performance. As part of this process, the U.S. EPA will establish operational parameters for the system (i.e., acceptable temperature ranges in the chamber that heats the soil and sediment, appropriate temperature for the thermal oxidizer, how long the soil/sediment need to be heated). Once the system is fully operational, it would operate within the established parameters to ensure that it is sufficiently treating the soil and sediment and meeting air regulations. In addition, continuous samples will be taken from the stack and analyzed for carbon monoxide, carbon dioxide, and total hydrocarbons.

The responsible companies are proposing on-site treatment as an effective and cost-efficient way to address this additional layer of contamination. On-site treatment for 15,000 cubic yards would cost less than \$1.5 million. Based on new estimates, the cost for off-site incineration is approximately \$3.6 million.

Although the treatment system being proposed is not a typical incinerator, it acts like one because the contaminants are thermally treated. The U.S. EPA has stringent standards on how such systems must operate. The U.S. EPA believes that this treatment system would be effective and would monitor it to verify its safety. However, if the U.S. EPA decides to allow the on-site treatment to be tested and it fails to meet the U.S. EPA's requirements, the technology will not be used. Instead, the layer of heavily contaminated soil and sediment may be

sent off-site for treatment. (The on-site treatment system being considered is not meant to address liquid waste. Any liquid waste collected from the soil will automatically be sent to an off-site location for incineration.)

Despite the delay due to the discovery of the additional layer of contamination, the U.S. EPA still expects a significant amount of Fields Brook to be cleaned up this year. The entire brook cleanup is expected to be completed in 2002.

## **Industrial Cleanups to be Completed this Summer**

Cleanups at the remaining two Source Control Operable Units will be finished this summer. Cleanups are already done at the other four Source Control Operable Units - - Acme Scrap, Millenium  $\text{TiCl}_4$  plant, the North Sewers, and Conrail.

### **Detrex Corporation**

This summer, extraction wells will be installed to pump out the highly contaminated ground water from below the site. In March 2001, a slurry wall and system of interceptor trenches was completed to prevent highly contaminated ground water from leaving the site.

### **RMI Metals**

The excavation of PCB-contaminated soil will begin this month. The material will be placed in the on-site landfill.

## **Community Involvement**

The U.S. EPA wants to hear from you about whether to allow this additional layer of contamination to be treated on-site. You are encouraged to attend a public meeting at 7 p.m. on Thursday, May 10, 2001, at the Ashtabula Area Chamber of Commerce, 4536 Main Avenue, in Ashtabula. U.S. EPA representatives will discuss the on-site treatment proposal in detail and will address all of your questions and concerns. For more information, please call, write, or e-mail the contacts listed on the back page.

## ADDITIONAL INFORMATION

Anyone interested in learning more about the Fields Brook site cleanup, or the Superfund process in general, is encouraged to review documents in the information repositories located at:

**Ashtabula County District Library    Kent State Campus Library**

335 West 44<sup>th</sup> Street

Ashtabula, Ohio

3325 West 13<sup>th</sup> Street

Ashtabula, Ohio

For additional information about the Fields Brook site, please contact:

### U.S. EPA Contacts

**Denise Battaglia (P-19J)**

*Community Involvement*

*Coordinator*

(312) 886-9859

battaglia.denise@epa.gov

**Terese Van Donsel (SR-6J)**

*Remedial Project Manager*

(312) 353-6564

vandonsel.terese@epa.gov

### U.S. EPA Region 5

77 West Jackson Boulevard

Chicago, Illinois 60604

Toll Free: (800) 621-8431

<http://www.epa.gov/region5>

### State of Ohio Contact

**Sig Williams,**

*Project Manager*

Ohio EPA,

Northeast District Office

2110 East Aurora Avenue

Twinsburg, Ohio 44087

(330) 963-1210

regan.williams@epa.state.oh.us



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U.S. Environmental Protection Agency

Region 5

Office of Public Affairs (P-19J)

77 West Jackson Boulevard

Chicago, Illinois 60604

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## Fields Brook Superfund Site Update

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